REMARKS

Claims 1-12 and 16-27 are pending. The Examiner's reconsideration of the rejections is respectfully requested in view of the amendments and remarks.

Claims 1-8, 12, 16-23 and 27 have been rejected under 35 U.S.C. 102(e) as being anticipated by Lipton et al. (U.S. Patent No. 6,505,323). The Examiner stated essentially that Lipton teaches all the limitations of claims 1-8, 12, 16-23 and 27.

Claims 1 and 16 claim "representing a structure of the hierarchical very large scale integrated design as a graph comprising design objects; specifying a transformation behavior applied to the design objects; and processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design."

Lipton teaches a method for determining equivalency between schematics and layouts (see Abstract). Lipton does not teach "processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design" as claimed in claims 1 and 16. Lipton compares a schematic and a layout. Further, the comparison is performed depth-first (see col. 8, lines 48-53). Nowhere does Lipton teach steps for design, much less steps for a top-down transformation of a design, essentially as claimed in claims 1 and 16. Lipton compares a schematic to a layout; such a comparison is not a top-down transformation of a design. Therefore, Lipton fails to teach all the limitations of claims 1 and 16.

Claims 2-8 and 12 depend from claim 1. Claims 17-23 and 27 depend from claim 16. The dependent claims are believed to be allowable for at least the reasons given for claims 1 and 16. At least claim 8 is believed to be allowable for additional reasons.

Claim 8 claims, "wherein processing, top-down, the graph comprises resolving boundary

conditions, recursively, by adjusting a parent cell, beginning with a root cell of the graph."

Lipton teaches a depth-first method for comparing schematics and layouts (see col. 8, lines 45-53). Lipton does not teach a method for resolving boundary conditions that begins with a root cell, essentially as claimed in claim 8. Lipton's method first processes child cells (for example, see Figure 8, blocks 423 and 424). Lipton does not teach a method that processes a root cell first. Therefore, Lipton fails to teach all the limitations of claim 8.

The Examiner's reconsideration of the rejection is respectfully requested.

Claims 1, 8-11, 16 and 23-26 have been rejected under 35 U.S.C. 102(b) as being anticipated by Aubel et al. (U.S. Patent No. 5,696,693). The Examiner stated essentially that Aubel teaches all the limitations of claims 1, 8-11, 16 and 23-26.

Claims 1 and 16 claim "representing a structure of the hierarchical very large scale integrated design as a graph comprising design objects; specifying a transformation behavior applied to the design objects; and processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design."

Aubel teaches a method for computer-aided design system for placing logic functions and cells (see Abstract). Aubel does not teach "processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design" as claimed in claims 1 and 16. Aubel's method is a bottom-up method, as shown for example in Figure 4B (see block 55). Thus, Aubel does not teach "processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design" as claimed in claims 1 and 16.

Claims 8-11 depend from claim 1. Claims 23-26 depend from claim 16. The dependent claims are believed to be allowable for at least the reasons given for claims 1 and 16. At least claim 8 is believed to be allowable for additional reasons.

Claim 8 claims, "wherein processing, top-down, the graph comprises resolving boundary conditions, recursively, by adjusting a parent cell, beginning with a root cell of the graph."

Aubel teaches bottom-up (depth-first) and breadth first methods for a for computer-aided design system (see col. 12, liens 32-34). Aubel does not teach a method for resolving boundary conditions that begins with a root cell, essentially as claimed in claim 8. Aubel teaches depth-first and breadth first methods. Nowhere does Aubel teach a method that processes a root cell first. Therefore, Aubel fails to teach all the limitations of claim 8.

The Examiner's reconsideration of the rejection is respectfully requested.

Claims 1 and 16 have been rejected under 35 U.S.C. 102(e) as being anticipated by Kale et al. (U.S. Patent Application No. 2004/0010759). The Examiner stated essentially that Kale teaches all the limitations of claims 1 and 16.

Claims 1 and 16 claim "representing a structure of the hierarchical very large scale integrated design as a graph comprising design objects; specifying a transformation behavior applied to the design objects; and processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design."

Kale teaches a method for identifying structural regularity in a logic design (see Summary). Kale does not teach "processing, top-down, the graph to perform the transformation on the hierarchical very large scale integrated design" as claimed in claims 1 and 16. Kale does not teach a top-down method for transformation of a design, essentially as claimed in claims 1 and 16. Kale's method includes a template tree and different methods for determining structural regularity in a logic design. Among these methods Kale teaches a Largest_Template method that works recursively and starts from the leafs and works toward the root node of the tree template, a bottom-up method (see paragraph [0095]. Kale does not teach a top-down method. Therefore,

9

Kale fails to teach all the limitations of claims 1 and 16.

For the forgoing reasons, the present application, including claims 1-12 and 16-27, is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.
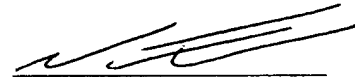
Respectfully submitted,

_____

Nathaniel T. Wallace
Reg. No. 48,909
Attorney for Applicants

F. CHAU & ASSOCIATES, LLP
30 Woodbury Road
Woodbury, New York 11797
TEL: (516) 692-8888
FAX: (516) 692-8889

Kale fails to teach all the limitations of claims 1 and 16.

For the forgoing reasons, the present application, including claims 1-12 and 16-27, is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.

Respectfully submitted,

Nathaniel T. Wallace
Reg. No. 48,909
Attorney for Applicants

F. CHAU & ASSOCIATES, LLP
30 Woodbury Road
Woodbury, New York 11797
TEL: (516) 692-8888
FAX: (516) 692-8889